

region between the upper and lower proximal surfaces **918**, **920** and the upper and lower distal surfaces **922**, **924** are upper and lower second transition surfaces **934a**, **934b**, respectively. Second transition surfaces **934a**, **934b** each have a curvature **C2'** that conforms to the inner cortical rim along the lateral portion thereof in the coronal plane, such as shown in FIG. 55. Second transition surfaces **934a**, **934b** have a height **X2** from the respective upper or lower proximal surfaces to the central region **914b**. In one specific embodiment, height **X2** is 3 millimeters, and curvature **C2'** is defined by a radius of curvature of 8 millimeters.

As shown in FIGS. 48–49, upper and lower third transition surfaces **936a**, **936b** extend from distal end surface **932** to distal upper surface **922** and distal lower surface **924**. Upper and lower third transition surfaces **936a**, **936b** also extend from first transition surface **930** to the respective upper and lower distal surfaces **922**, **924**. Third transition surfaces **936a**, **936b** have a curvature **C3'** that blends distal end surface **932** into the upper and lower distal surfaces **922**, **924**. As shown in FIG. 56, curvature **C3'** of third transition surfaces **936a**, **936b** conforms to the inner cortical rim along the posterior portion of the cortical rim and its transition to the lateral portion of the cortical rim. Third transition surfaces **936a**, **936b** further blend first transition surface **930** into the upper and lower distal surfaces **922**, **924**. In one specific embodiment, curvature **C3'** is defined by a radius of curvature of 1.5 millimeters along distal end surface **932** and a radius of curvature of 2 millimeters along first transition surface **930**.

Distractor tip **900** having the above features generally corresponds to the anatomical geometry of the vertebral endplates **E1** and **E2**, and, in particular, the endplate curvatures **C1**, **C2** and **C3**. As such, distractor tip **900** is self-locating in the spinal disc space to the location where its geometrical configuration most closely matches that of the vertebral endplates. Furthermore, upon insertion distractor tip **900** will be located in the disc space in contact with the inner cortical rim, and any tendency for distractor tip **900** to move laterally or distally in the disc space is resisted by contact between the cortical rim and body **904**.

While the invention has been illustrated and described in detail in the drawings and foregoing description, the same is to be considered as illustrative and not restrictive in character, it being understood that only the preferred embodiment has been shown and described and that all changes and modifications that come within the spirit of the invention are desired to be protected.

What is claimed is:

1. A spinal disc space distractor, comprising:

- a body positionable in a spinal disc space between adjacent vertebrae, said body having a distal end surface, a proximal end and a central axis extending therebetween, said body including:
 - a lateral surface extending generally in the direction of said central axis;
 - a medial surface opposite said lateral surface and extending generally in the direction of said central axis;
 - an upper surface extending generally in the direction of said central axis;
 - a lower surface opposite said upper surface and extending generally in the direction of said central axis;
 - a first transition surface extending between said distal end surface and said lateral surface, said first transition surface having a first curvature generally corresponding to a curvature of an inner portion of a cortical rim of vertebral endplates in an axial plane;

a second upper transition surface extending between said lateral surface and said upper surface and a second lower transition surface extending between said lateral surface and said lower surface, said second upper and lower transition surfaces each having a second curvature generally corresponding to a curvature of an inner portion of a cortical rim of vertebral endplates in a coronal plane; and

a third upper transition surface extending between said distal end surface and said upper surface and a third lower transition surface extending between said distal end surface and said lower surface, said third upper and lower transition surfaces each having a third curvature generally corresponding to a curvature of an inner portion of a cortical rim of vertebral endplates in a sagittal plane.

2. The distractor of claim 1, wherein said third upper transition surface extends between said first transition surface and said upper surface and said third lower transition surface extends between said first transition surface and said lower surface.

3. The distractor of claim 1, wherein said upper and lower surfaces each include a plurality of teeth formed therein.

4. The distractor of claim 1, wherein said upper surface includes a proximal portion and a distal portion and said lower surface includes a proximal portion and a distal portion, said proximal portions being generally parallel with one another and said distal portions tapering toward one another from said proximal portions toward said distal end surface.

5. The distractor of claim 1, wherein the distractor includes a proximal end wall adjacent said proximal end and said body extends distally from said proximal end wall.

6. The distractor of claim 5, wherein said proximal end wall includes an inner surface extending above said upper surface and an inner surface extending below said lower surface, said inner surfaces capable of contacting adjacent vertebrae to limit insertion depth of said body in the spinal disc space.

7. The distractor of claim 5, wherein said proximal end wall and said body include a bore extending distally therein from said proximal end wall.

8. The distractor of claim 7, further comprising a shaft attachable to said bore.

9. The distractor of claim 1, wherein said body is made from radiolucent material and said body further includes at least one radiographic marker.

10. The distractor of claim 1, wherein said distal end surface is linear and orthogonal to said central axis.

11. The distractor of claim 1, wherein said lateral surface includes a central linear region extending parallel to the central axis, said second upper and lower transition surfaces extending between said central region and said upper surface and said lower surface, respectively.

12. A spinal disc space distractor, comprising:

- a body positionable in a spinal disc space between adjacent vertebrae, said body having a central axis extending therethrough, said body including:
 - a distal end surface;
 - a lateral surface extending generally in the direction of said central axis;
 - a medial surface opposite said lateral surface and extending generally in the direction of said central axis;
 - an upper surface extending generally in the direction of said central axis;
 - a lower surface opposite said upper surface and extending generally in the direction of said central axis; and